



Liquid Alum PRODUCT PROFILE

CHARACTERISTICS

Liquid aluminum sulfate (liquid alum) is a clear, light green to light yellow aqueous solution. Iron-free and food-grade liquid alums are clear and colorless.

TYPICAL PROPERTIES

Dry Alum Equivalent, as $Al_2(SO_4)_3 \cdot 14H_2O$	48.5 % (approx.)
Molecular Weight of Dry Alum	594
Product Density	11.1 - 11.2 lbs./US gallon
Specific Gravity	1.335 - 1.337
pH, 1% Dry Alum Basis Solution	3.5 (approx.)
Boiling Point	214 °F (101 °C) (approx.)
Freezing Point	5 °F (-15 °C)
Freezing Temperatures of Solutions	See Figure 1

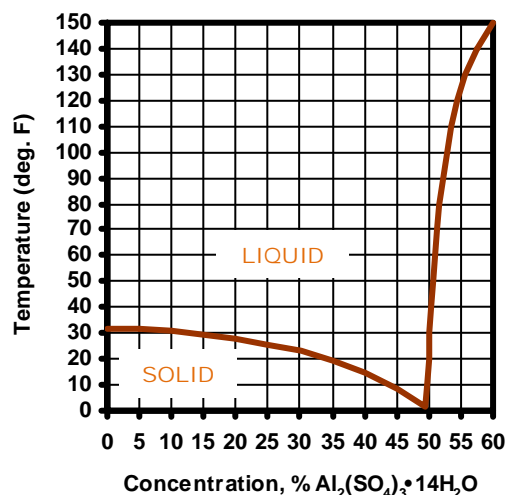


Figure 1: Approximate Freezing Temperature of Aluminum Sulfate Solutions

Acidified Alum also available

TYPICAL ANALYSES

Grade	Standard	Low Iron	Iron-Free	FCC, Food Grade
Total Soluble Al_2O_3 , %	8.0 - 8.4	8.0 - 8.4	8.0 - 8.3	8.0 - 8.2
Free Al_2O_3 , %	0.01 - 0.20	0.01 - 0.20	0.01 - 0.20	0.01 - 0.20
Total Soluble Iron, (as Fe_2O_3), %	0.3 max.	< 0.02	0.005 max.	0.005 max.
Water Insolubles, %	0.5 max.	0.02 max.	0.008 max.	0.005 max.

PRODUCT MARKETS AND USES

Water and Wastewater Treatment

- BOD Removal
- Chemically Enhanced Primary Treatment
- Coagulation / Flocculation Agent
- Color Reduction
- Disinfection Byproduct Control
- Oily Waste and Heavy Metal Separation
- Stormwater Treatment
- Struvite Control
- Suspended Solids Removal
- Total Organic Carbon Removal / Reduction
- Water Clarification

Papermaking

- Paper Sizing
- Retention Aid / Drainage Aid

Environmental

- Algae Control
- Lagoon Treatment
- Lake Treatment and Restoration
- Phosphorus Control / Inactivation

Liquid Alum

PRODUCT PROFILE

SHIPPING LOCATIONS

US

- Ashdown, AR
- Pine Bluff, AR
- Sacaton, AZ
- Bay Point, CA
- Denver, CO
- Jacksonville, FL
- Port St. Joe, FL
- Tampa, FL
- Augusta, GA^{1,2}
- Cedar Springs, GA²
- East Point, GA
- Macon, GA
- Savannah, GA
- East St. Louis, IL^{1,3}
- Indianapolis, IN³
- River Rouge, MI
- Newark, NJ
- Middletown, OH³
- Toledo, OH
- Johnsonburg, PA³
- Catawba, SC
- Springfield, TN²
- Odem, TX
- Terrell, TX³
- Covington, VA
- Hopewell, VA
- Vancouver, WA
- Menasha, WI³
- WI Rapids, WI³

CANADA

- Barnet, BC
- Dalhousie, NB
- Nellie Lake, ON
- Thorold, ON
- Thunder Bay, ON
- Valleyfield, QC

Locations listed above ship Standard Grade Liquid Alum. Also available as follows:

- (1) FCC, Food Grade
- (2) Iron-Free Grade
- (3) Low Iron Grade

SHIPPING REGULATIONS

Hazard Class: 8

Label: *Corrosive*

ID Number: UN3264

Proper Shipping Name:

*Corrosive Liquid, Acidic, Inorganic N.O.S.
(Contains Aluminum Sulfate)*

Packing Group: III

RQ: 5000 lbs. (CASRN Formula Basis)



Underwriter Laboratories, Inc.® (UL) certifies that General Chemical's Water Chemicals Group is in compliance with ISO 9001:2000.

PRODUCT SAFETY INFORMATION

As with any chemical, aluminum sulfate requires care in handling.

Anyone responsible for the procurement, use or disposal of this product should familiarize himself and those handling the product with the appropriate safety and handling precautions.

This information is available in the Material Safety Data Sheet, which may be obtained by contacting our Customer Service group (see box below).

In the event of an emergency with these products, call the 24 hour Emergency Number:

US Only: (CHEMTREC) (800) 424-9300

Canada Only: (CANUTEC) (613) 996-6666

CORPORATE HEADQUARTERS

General Chemical

90 East Halsey Road

Parsippany, NJ 07054

IN CANADA

Call Customer Service at

(800) 631-8050 (English)

(866) 543-3896 (French)



CUSTOMER SERVICE

(800) 631-8050

TECHNICAL SERVICE

(800) 255-7589 or (315) 478-2323

WEBSITE

www.GeneralChemical.com

NSF certifies that plants listed comply with the requirements of NSF/ANSI Standard 60: Drinking Water Treatment Chemicals-Health Effects.

General Chemical complies with the standards for American Water Works Association Standard ANSI/AWWA B403-09 for Aluminum Sulfate.

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